FIVE YEAR REVIEW REPORT

WAYNE WASTE OIL SUPERFUND SITE

COLUMBIA CITY,
INDIANA

Pursuant to CERCLA

Prepared by:
United States Environmental Protection Agency
Region 5
Chicago, Illinois

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Superfund Division, Region 5

June 2, 2004
Date

FIVE YEAR REVIEW REPORT
EXECUTIVE SUMMARY
JUNE, 2004

WAYNE WASTE OIL SUPERFUND SITE

COLUMBIA CITY,
INDIANA

The completion of the current five year review confirms that the Wayne Waste Oil Superfund Site remains protective of human health and the environment. The components of the remedy selected in the 1990 Wayne Waste Oil Site Record of Decision have been implemented under the 1992 Consent Decree. The Site landfill cap and slurry wall are functional, operational and effective, with post closure maintenance assuring protectiveness.

The Site groundwater and soil treatment systems continue to operate and be monitored under the 1995 Operation, Maintenance and Monitoring Plan. The hydrological assessment in 2002-2003 indicates that the groundwater treatment system is maintaining an inward gradient from the Blue River to the Site. Restrictions for Site access, use of the landfill, and use of contaminated groundwater associated with the Site remain in place.

This is the second five year review for the Wayne Waste Oil Site. The first five year review was completed and signed in June 1999. Since the 1999 Site review, the Purus off-gas air treatment system was discontinued in June 1999. This system had previously been used at the Site for treatment of the off-gases from the air stripping tower and the SVE system prior to discharge the atmosphere. An abandoned Site building was demolished during July 2000. At the conclusion of the demolition activity, a total of 560 tons of debris was removed from the Site for landfill disposal. 39 tons metal materials were removed from the Site for recycling.

Additional adjustments to the Wayne Waste Oil operation and maintenance system since the last Five Year Review include discontinuing the air sparging to the deep sparge wells effective September 2001. The remaining air sparging wells and the SVE wells continue to operate, and are rotated to maximize the removal efficiency of the systems.

Three additional SVE wells and four more groundwater piezometer wells were installed in 2002 and 2003, in order to better remediate and monitor the Site. The piezometer wells were installed as a result of a Site hydrological assessment, which also affirmed that the groundwater extraction system is maintaining an inward gradient to the Site. The groundwater treatment plant discharge line was back flushed a number of times in 2003 to remove iron sediments and increase the flow rate.

U.S. Environmental Protection Agency
Region 5
Five Year Review
Wayne Waste Oil Superfund Site
Columbia City, Indiana
June 2004

I. Introduction

The United States Environmental Protection Agency (U.S. EPA) Region 5 has conducted a five year review of the remedial actions implemented at the Wayne Waste Oil Superfund Site in Columbia City, Indiana. The review was conducted between January 2004 and June 2004. This report documents the results of the five year review. The purpose of five year reviews is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of the review are documented in the five year review reports. In addition, five year review reports identify issues found during the review, if any, and make recommendations to address them.

This review is required by statute. U.S. EPA performs statutory reviews on remedies selected that result in hazardous substances, pollutants or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure.

The NCP part 300.430(f)(4)(ii) of the Code of Federal Regulations (CFR) states:

> If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

This is the second five year review for the Wayne Waste Oil Superfund Site. The first five year review was completed on June 10, 1999. The date for the current five year review is triggered by the completion of the June 1999 review. Both reviews are based on the initiation of the remedial action response date for the Site which was May 1994.

II. Site Chronology

Table 1 lists the chronology of events for the Wayne Waste Oil Superfund Site.

Five Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: Wayne Waste Oil		
EPA ID *(from WasteLAN)*: IND048989479		
Region: 5	**State:** IN	**City/County:** Columbia City, Whitley
SITE STATUS		
NPL status: X Final __ Deleted __ Other (specify) _____		
Remediation status (choose all that apply): __ Under Construction X Operating __ Complete		
Multiple OUs?* __ YES X NO	**Construction completion date:** 6/30/95	
Has site been put into reuse? __ YES X NO		
REVIEW STATUS		
Lead agency: X EPA __ State __ Tribe __ Other Federal Agency _____		
Author name: Jeff Gore		
Author title: Remedial Project Manager	**Author affiliation**: U.S. EPA, Region 5	
Review period:** 3/8/04 to June, 2004		
Date(s) of site inspection: April 12, 2004		
Type of review: X Post-SARA __ Pre-SARA __ NPL-Removal only __ Non-NPL Remedial Action Site __ NPL State/Tribe-lead __ Regional Discretion		
Review number: __ 1 (first) X 2 (second) __ 3 (third) __ Other (specify) _____		
Triggering action: __ Actual RA Onsite Construction at OU #___ __ Actual RA Start at OU# 1__ __ Construction Completion X Previous Five-Year Review Report __ Other (specify) _____		
Triggering action date *(from WasteLAN)*: 6/10/1999		
Due date *(five years after triggering action date)*: 6/10/2004		

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Table 1: Chronology of Site Events

Date	Event
1980	Initial discovery of problem
1982	Proposed for NPL listing
1983	NPL final listing
1987	First Removal Action completed
1987	Remedial Investigation/FS initiated
1989	Second Removal Action completed
1990	Remedial Investigation/FS completed
1990	ROD signed
1992	RD/RA consent decree
1994	Remedial Action Start
1995	Remedy construction completion
1999	First Five Year Review
1999	Off-gas treatment system discontinued
2000	Abandoned building demolished
2003	Additional SVE wells installed

III. Background

A. Physical Characteristics

The Wayne Waste Oil Superfund Site, also referred to as Wayne Reclamation and Recycling (WRR), covers approximately 30 acres in the southeast part of Columbia City, Indiana (Refer to Site Figures). The area north of the Site is commercial and residential. A cemetery borders the Site on the west. The Blue River forms the south and east boundary of the Site. The area across the Blue River to the south is residential, and an industrial park is under development to the east across the river. The Site is partly within the 100-year floodplain of the Blue River.

B. Land and Resource Use

The Site can be divided into three major areas. The southeast portion lies in a floodplain adjacent to the Blue River and was an area where liquid wastes were stored and dumped. The northeast portion was the location of a landfill area which was operated by Columbia City from 1953 to 1970. The central and western portion of the Site lies in an upland area which was the location of numerous tanks from the oil recycling and reclamation operations. Nearby residential areas are served with municipal drinking water. Two of the City's municipal water supply wells are located immediately north of the Site.

C. History of Contamination

WRR and its division, Wayne Waste Oil, began operating an oil reclamation business at the Site in 1975. In 1976, a license to haul liquid industrial waste was granted by the Indiana Pollution Control Board. In 1980, the Indiana State Board of Health (ISBH) began an investigation as a result of reports from a former WRR employee that hazardous wastes were being illegally disposed of at the Site. ISBH determined that between February 1979 and May 1980, WRR filed hauler reports stating that it had disposed of 250,000 gallons of sludge at the Williams County Landfill in Bryan, Ohio. However, the landfill had not received any waste shipments from WRR during that time.

D. Initial Response

In 1982, WRR and one of its principals, Wayne Brockman, pleaded guilty to illegal "depositing of contaminants" and filing false hauler reports. They were required to pay a fine, to fund a risk assessment for the Site, and to pay for the cleanup. WRR did not perform the cleanup required under its guilty plea.

In July 1986, approximately 100 potentially responsible parties (PRPs) entered into an Administrative Order by Consent to conduct a removal action at the Site. Because this work performed from late summer 1986 to fall 1987 was not satisfactorily completed, a Unilateral Administrative Order was issued to a group of four PRPs in February 1988 (modified in March and May 1988). Work under this second order was conducted from May 1988 to March 1989.

These removal actions involved the disposal of surface and buried drums; excavation and disposal of liquids, sludges, and contaminated soil from various areas of the Site; and disposal of the contents of storage tanks. The two removal actions resulted in the removal of more than 13,000 tons of material from the Wayne Waste Oil Site.

E. Basis for Taking Action

Remedial planning began as the Wayne Waste Oil Superfund Site was proposed for the National Priorities List on December 30, 1982. The Site became a final listing on September 8, 1983.

In August 1987, U.S. EPA entered into an Administrative Order by Consent with over 100 PRPs to conduct the Remedial Investigation (RI)/Feasibility Study (FS).

The RI, completed in June 1989, documented that eight volatile organic compounds (VOCs) and two metals present in the groundwater beneath the site exceeded Maximum Contaminant Levels (MCLs). Major contaminants of concern in the groundwater included trichloroethylene (TCE) and vinyl chloride.

VOC contamination in the subsurface soils also presented a risk due to the potential for further leaching of contaminants into the groundwater. Other contaminants of concern in the soils were polynuclear aromatic hydrocarbons (PAHs) and lead, due to a risk from direct contact with or inhalation of surface soils.

The FS was completed in January 1990.

The findings of the RI/FS indicated the following:

SURFACE AND SUBSURFACE SOILS: The highest levels of volatile organic soil contamination were detected in the southwest area of the site along the Blue River; in the northern portion of the Site west of the old City Landfill; and in the southeast corner of the Site. The major contaminants of concern were chlorinated ethenes and to a lesser extent, chlorinated ethanes, toluene and alkanes. Certain inorganic compounds such as magnesium, chromium, copper, zinc and lead were detected at levels above those considered to be common in background soils.

The old City Landfill did not have an appropriate cover that complied with RCRA Subtitle D regulations. The limited information regarding waste disposal indicated that municipal solid waste was disposed there, although some hazardous waste may have been received by the City Landfill.

SURFACE WATER AND SEDIMENTS: Concentrations of inorganic parameters in surface water and sediments from the Blue River adjacent to the Site were not significantly above those upstream from the Site boundary. Copper and zinc in sediments did show slight exceedences. Concentrations of cyanide in on-site surface water sediment, pond and wetland areas were elevated. Volatile organic compounds were elevated in surface water locations on the Site.

GROUNDWATER: Groundwater flow in the upper aquifer zone at the Site is from west to east. In general, groundwater is recharged to the west of the Site, and flows toward the Blue River. The Blue River flows along the eastern and southern boundaries of the Site. The majority of the groundwater contamination is caused by chlorinated ethenes and ethanes and occurs in the same general location as the volatile organic soil contamination.

A Columbia City municipal well is located in the lower aquifer zone just north of the Site. The lower zone groundwater flow is from northwest to southeast and was not found to be contaminated.

U.S. EPA and the Indiana Department of Environmental Management (IDEM) prepared a Record of Decision (ROD) in March of 1990 that outlined a soil and groundwater containment & treatment Site remedy. A corresponding Remedial Design/ Remedial Action (RD/RA) Consent Decree was entered in court in July of 1992.

IV. Remedial Actions

A. Remedy Selection

The response actions outlined for the Wayne Waste Oil Site in the March 1990 ROD included the following remedial components:

* Construction, operation, and maintenance of a soil vapor extraction (SVE) system in the VOC-contaminated soil areas;

* Construction, operation, and maintenance of a groundwater extraction, treatment and discharge system;

* Monitoring of groundwater and air;

* Delineate the extent of the municipal landfill;

* Construction and maintenance of a RCRA Subtitle D compliant cap over the municipal landfill;

* Deed restrictions to ensure the protection of the municipal landfill cap;

* Cover PAH-contaminated soil or consolidate it under the municipal landfill cap;

* Delineate and remediate lead-contaminated soils via soil washing, or immobilization and stabilization technologies;

* Remove and treat the contents of all above- and below-ground tanks, and delineate the extent of contamination due to spills or leaks associated with the tanks;

* Remove and dispose of site debris, including but not limited to all tanks (above-ground, below-ground, and partially buried), tanker trucks, and the incinerator;

* Install an upgraded security fence around the site.

B. Remedy Implementation

A Consent Decree was entered in the Northern District Court of Indiana in July 1992. Under this Consent Decree, a group of PRPs agreed to conduct the remedial design (RD) and complete the remedial action (RA).

The Consent Decree required additional studies to supplement the available technical information for design of the remedy. The additional studies confirmed a need for a passive gas venting system for the municipal landfill, as well as a slurry wall around the southeast area of the Site to maintain an upward groundwater gradient to prevent movement of contaminants into the lower aquifer. Additional studies also indicated that air sparging inside the slurry wall would enhance groundwater remediation, and thus, air sparge wells were incorporated for the southeast area.

At the time of earlier investigations, the owner was operating from a building on-site. During the remedial action, several additional drums and buckets of material were discovered inside the building. Although most contained very little material, removal and proper disposal of these drums and buckets was also addressed as part of the remedial action.

Analytical results from sampling conducted as part of pre-design investigations indicated that the subsurface lead was not leaching. With no direct contact threat and no impact to the groundwater, remediation of the lead-contaminated soils was not warranted.

Removal of surface debris on the landfill, removal of an incinerator, and removal of above-ground and underground storage tanks took place in 1993, in accordance with approved work plans. The RD for the landfill (City of Columbia City) was approved in January 1994, construction began in May 1994 and construction was complete in August 1994. The RD for the remaining activities (Non-City Settlors) was approved in February 1994 and construction began in June 1994. The soil vapor extraction and groundwater pump and treat systems were completed in January 1995 with all Site construction completed in June 1995.

C. Systems Operations/ Operations and Maintenance

The goal of remedial operations at the Wayne Waste Oil Superfund Site include the elimination of any excess soil ingestion, inhalation, direct contact, or groundwater leachate human health risks by treatment, containment and removal of contaminated soils and sediments. Groundwater remedial objectives are the attainment of primary and secondary maximum drinking water contaminant levels (MCLs), and elimination of any excess life-time cancer risk in groundwater.

Excess human health risks due to contaminated soils and sediments are being addressed by the

soil remedies at the Site. The removal actions of 1993 and the municipal cap construction completed in 1994 reduced a substantial portion of the Site risks. The soil vapor extraction system has been operating since 1995, and has removed approximately 11,600 lbs. of VOCs as of the end of 2003. Soil VOC cleanup standards are based on levels that will not leach contaminants to the groundwater, and are outlined in the Site Operation, Maintenance and Monitoring (O,M&M) Plan.

The Site slurry wall, groundwater pump & treatment and air sparging system have been operational since 1995. The groundwater treatment system has processed over 195,000,000 gallons of groundwater as of the end of 2003. Groundwater contaminant levels and risks have been substantially reduced toward cleanup levels as listed in the O,M&M Plan.

V. Progress Since Last Five Year Review

This is the second five year review for the Wayne Waste Oil Site. The first five year review report was completed and signed in June 1999. Recommendations during the 1999 review included the following:

The Wayne Waste Oil Group continue to operate and maintain the groundwater air sparging and pump & treatment system in order to contain the groundwater plume inside the slurry wall, and reduce contaminant concentrations toward Site drinking water standards. The Site vapor extraction system should continue to operate until soil VOC clean-up levels are attained to assure that contamination does not leach into groundwater and create an exceedence in groundwater clean-up standards. Groundwater treatment system monitoring and SVE system sampling should continue to assure that the remedy is operating properly and contaminant concentrations are reported. The Site municipal waste landfill should be inspected for cap integrity and proper drainage. Other Site inspections include the security fence and signs, groundwater extraction, treatment and discharge system, and the SVE network.

The Purus off-gas air treatment system was discontinued in June 1999. This system had previously been used at the Site for treatment of the off-gases from the air stripping tower and the SVE system prior to discharge the atmosphere.

An abandoned Site building was demolished during July 2000. At the conclusion of the demolition activity, a total of 560 tons of debris was removed from the Site for landfill disposal. 39 tons metal materials were removed from the Site for recycling.

Adjustments to the Wayne Waste Oil operation and maintenance system since the last Five Year Review include discontinuing the air sparging to the deep sparge wells effective September 2001. The remaining air sparging wells and the SVE wells continue to operate, and are rotated about once a week to maximize removal efficiency of the systems.

Three additional SVE wells and four more groundwater piezometer wells were installed in 2002 and 2003, in order to better remediate and monitor the Site. The piezometer wells were installed as a result of a Site hydrological assessment, which also affirmed that the groundwater extraction system is maintaining an inward gradient from the Blue River to the Site. The groundwater treatment plant discharge line was back flushed a number of times in 2003 to remove iron sediments and increase the flow rate.

VI. Five Year Review Process

A. Administrative Components

The Wayne Waste Oil Site five year review was prepared by Jeff Gore, U.S. EPA Remedial Project Manager for the Site. Jessica Fliss, State Project Manager with the Indiana Department of Environmental Management (IDEM), also assisted with the review. The five year review consisted of a Site inspection and review of relevant documents.

B. Community Involvement

The completed report will be available in the Site information repository and the U.S. EPA website for public view. An advertisement notice announcing the five year review process was placed for public viewing in the Columbia City, IN Post & Mail newspaper on May 4, 2004.

Community relations ongoing at the Wayne Waste Oil Site include the comprehensive sampling program currently being carried out to assure that the residents human health and environment is protected, and contaminants are contained and treated on the Site.

C. Document Review

Documents reviewed in preparation of this five year review report include the following:

1) Five Year Review Report, Wayne Waste Oil Site, 6/10/99

2) RD/RA Consent Decree, Wayne Waste Oil Site, July 1992

3) Record of Decision, Wayne Waste Oil Site, March 1990

4) Wayne Waste Oil Site file, and operation & maintenance documents

The following standards were identified as applicable or relevant and appropriate requirements (ARARs) in the ROD and previous five year review for the Site, and were reviewed for changes that could affect protectiveness:

- Safe Drinking Water Act Maximum Contaminant Levels (MCLs);

-Resource Conservation and Recovery Act (RCRA) hazardous and solid waste disposing and storage regulations;

- Clean Water Act (CWA)

- Department of Transportation (DOT) hazardous materials rules

- State of Indiana requirements for soil, groundwater, surface water and air compliance;

D. Data Review

The Wayne Waste Oil Consent Decree operation and maintenance sampling has been completed and reported at the Site through the end of 2003. Approximately 20 groundwater monitoring wells and various SVE wells are sampled and analyzed during the semi-annual and annual sampling programs. A number of reported results in 2003 show that the groundwater and soil contamination levels remain substantially above the cleanup standards for the compounds of concern at the Site, which included tetrachloroethane (PCE), trichloroethene (TCE) and their various degradation compounds.

The reported monitoring results in July through December 2003 are located in the most recent Montgomery Watson (MWH) operation and maintenance document. The title of the document is Semi-Annual Progress Report Number 17, Wayne Reclamation & Recycling, Inc. Wayne Waste Oil Site, March, 2004.

The primary objective of the groundwater and soil treatment systems at the Site is to contain the contaminants and prevent them from migrating beyond the Site boundaries, thereby protecting human health and the environment. The Site treatment systems are meeting this objective. The secondary objective is to extract and treat contaminants in order to restore soil and groundwater quality to the cleanup standards. Although the treatment systems continue to extract and treat the on-site contamination, they are unlikely to meet the cleanup objectives before the next five year review scheduled in 2009.

E. Site Inspection

The Wayne Waste Oil Site has been visited a number of times by the current remedial project manager since the last five year review. The most recent visit was performed on April 12, 2004, in order to inspect the Site for this five year review. Jeff Gore of U.S. EPA and Jessica Fliss of IDEM were present during the April inspection.

The S found to be in good condition during the inspec ently mowed and free of debris. A walk around the Site showed no signs of any vandalism or other disturbances. The

access fence was properly in place and secured. The fence had recently been expanded to include new piezometer wells and a SVE extension installed in 2002 and 2003. The groundwater pump at RW-2 was disassembled for routine maintenance.

Issues found during the five year review inspection were minor and included:

1) A copy of the Site gate key needs to be mailed to Jeff Gore and Jessica Fliss

2) GM-1 monitored by Columbia City and the other goundwater wells monitored by the Wayne Waste Oil Site group need to have locks placed on them.

3) The air line at SVE well 34 had a leak in it and needed to be replaced or repaired.

4) Two small erosion spots on the south side of the Site landfill needed to be filled and graded.

VII. Assessment

The following questions address the protection of human health and the environment of the remedy at the Wayne Waste Oil Superfund Site.

Question A: Is the remedy functioning as intended by the decision documents? Yes.

- **Implementation of Institutional Controls and Other Measures:** The 1990 ROD required institutional controls implementing deed and access restrictions to prevent development of the Site, and to assure the integrity of the landfill and other components of the remedial action. Site access and use is restricted with a security perimeter fence, as is the use of any contaminated groundwater associated with the Site. These controls and restrictions remain in place with the Columbia City to prevent property access and contaminated groundwater use is relation to the remedial action.

- **Remedial Action Performance:** The remedial action components included in the Wayne Waste Oil 1990 ROD have been completed. Removal of surface debris on the landfill, removal of an incinerator, and removal of above-ground and underground storage tanks took place in 1993, in accordance with approved work plans. The RD for the landfill (City of Columbia City) was approved in January 1994, construction began in May 1994 and construction was complete in August 1994. The RD for the remaining activities (Non-City Settlors) was approved in February 1994 and RA construction began in June 1994. The soil vapor extraction and groundwater pump and treat systems were completed in January 1995 with all Site construction completed in June 1995.

- **System Operations/O&M:** The soil vapor extraction system has been operating since 1995, and has removed approximately 11,600 lbs. of VOCs as of the end of 2003. The Site slurry wall, groundwater pump & treatment and air sparging system have been operational since 1995. The groundwater treatment system has processed over 195,000,000 gallons of groundwater as of the end of 2003.

- **Cost of System Operations/O&M:** Current annual O&M costs at the Wayne Waste Oil Site are primarily contributed to operation, maintenance and management of the Site landfill, soil treatment and groundwater treatment systems. 2004 Site estimated annual costs are approximately $200,000. Other costs involve U.S. EPA and IDEM project manager time and travel related to the Site, and unexpected Site construction or maintenance.

- **Opportunities for Optimization:** The three additional SVE wells constructed in 2002 and 2003 should provide additional optimization of the soil treatment system. The treatment plant discharge line flushing in 2003 should also create a more efficient treatment system.

- **Early Indicators of Potential Remedy Issues:** There have been no indicators of significant potential remedy issues in relation to the Wayne Waste Oil Site since the last five year review in 1999. The Site treatment plant should operate for the foreseeable future, since contaminant levels are substantially above remedial action cleanup standards.

Question B: Are the assumptions used at the time of remedy selection still valid? Yes.

- **Changes in Standards and To Be Considered:** Standards outlined in the 1990 Wayne Waste Oil ROD and 1992 Consent Decree are still valid at the Site.

- **Changes in Exposure Pathways:** No new exposure pathways have been discovered at the Wayne Waste Oil Site since the last five year review in 1999.

- **Changes in Toxicity and Other Contaminant Characteristics:** Toxicity and other factors for contaminants of concern have not changed since the last five year review in 1999.

- **Changes in Risk Assessment Methodologies:** Risk assessment methodologies used at the Wayne Waste Oil Site since the last five year review in 1999 have not changed, and do not call into question the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? No.

No other information has come available that could question the remedy at Wayne Waste Oil. The Site remedy remains protective of human health and the environment.

VIII. Issues

Issues that were discovered during the five year review process and the Wayne Waste Oil Site inspection are noted in Table 2.

Table 2: Identified Issues

Five Year Review Issues	**Affects Current Protectiveness (Y/N)**	**Affects Future Protectiveness (Y/N)**
Monitor new SVE wells to see how they impact soil treatment system	N	N
Continue to monitor groundwater treatment system to assure Site containment and treatment	N	N
Monitor groundwater treatment plant discharge line to assure proper flow rate	N	N
Issues Noted at Site Inspection		
Provide Site gate key to U.S. EPA and IDEM	N	N
Provide locks for all groundwater monitoring wells	N	N
SVE well 34 had a air line leak	N	N
Two small erosion areas on south side of Site landfill	N	N

IX. Recommendations and Follow-up Actions

The following recommendations and follow-up actions address the issues which were identified during the five year review and Site inspection:

1) Monitoring should continue on the new SVE wells installed during 2003 as part of the ongoing operation and maintenance sampling program.

2) Operation and maintenance monitoring should continue on the groundwater treatment system to assure Site plume containment and treatment.

3) Groundwater treatment plant discharge line flushing, such as the event in December 2003, should be repeated in the future if iron sediments continue to build up and reduce the discharge line flow rate.

4) Locks need to be provided for monitoring wells GM-1 and all the groundwater wells monitored by the Wayne Waste Oil Site group.

5) The air line at SVE well 34 needs to replaced or repaired.

6) The two erosion spots on the south side of the site landfill need to be filled and graded.

The following issue noted during the five year review and Site inspection period has been identified, and has been corrected or is in the process of being corrected.

7) A copy of the Wayne Waste Oil Site gate key is going to be mailed to U.S. EPA and IDEM by the contractor InSite.

Table 3 : Recommendations and Follow-up Actions

New Five Year Review Issues	Recommendations Follow-up Actions	Party Responsible	Oversight Agency	Mile-stone Date	Affects Protective ness (Y/N) Current, Future
Groundwater monitoring wells locks	Provide locks for all groundwater wells	Wayne Waste Oil Group/ InSite	EPA/IDEM	2004/ As soon as possible	N, N
Site gate key	Provide to U.S. EPA and IDEM	Wayne Group/ InSite	EPA/IDEM	2004/ ASAP	N, N
SVE well 34 air leak	Replace or repair air line	Wayne Group/ InSite	EPA/IDEM	2004/ ASAP	N, N
Ongoing Site Issues					
Monitor new SVE wells	Add to current monitoring program	Wayne Group/ InSite	EPA/IDEM	2004/ ongoing	N, N

Monitor groundwater system	Continue Site monitoring program	Wayne Group/ InSite	EPA/IDEM	2004/ ongoing	N, N
Landfill erosion	Fill erosion spots and grade	Wayne Group/ InSite	EPA/IDEM	2004/ Open	N, N
Treatment plant discharge	Flush groundwater line as needed	Wayne Group/ InSite	EPA/IDEM	Open	N, N

X. Protectiveness Statements

Completion of the current five year review confirms that the Wayne Waste Oil Superfund Site remains protective of human health and the environment, and there are no known exposure pathways that could result in unacceptable health risks. The components of the remedy selected in the 1990 Wayne Waste Oil Site ROD have been implemented under the 1992 Consent Decree.

The Site landfill cap and slurry wall are functional, operational and effective, with post closure maintenance assuring protectiveness. The Site groundwater and soil treatment systems continue to operate and be monitored under the 1995 Operation, Maintenance and Monitoring Plan. Restrictions for Site access, use of the landfill, and use of contaminated groundwater associated with the Site remain in place.

Since it is unlikely that Site cleanup standards will be met during the next five years, operation of the soil and groundwater treatment systems should be continued for the foreseeable future.

XI. Next Review

The Wayne Waste Oil Superfund Site requires ongoing statutory five year reviews. The next review will be scheduled to be completed by June 2009, and will be five years from the completion date of this report. The completion date of the current five year review is the signature date shown on the cover attached to the front of this report.

FIVE YEAR REVIEW REPORT
LIST OF DOCUMENTS REVIEWED
JUNE, 2004

WAYNE WASTE OIL SUPERFUND SITE

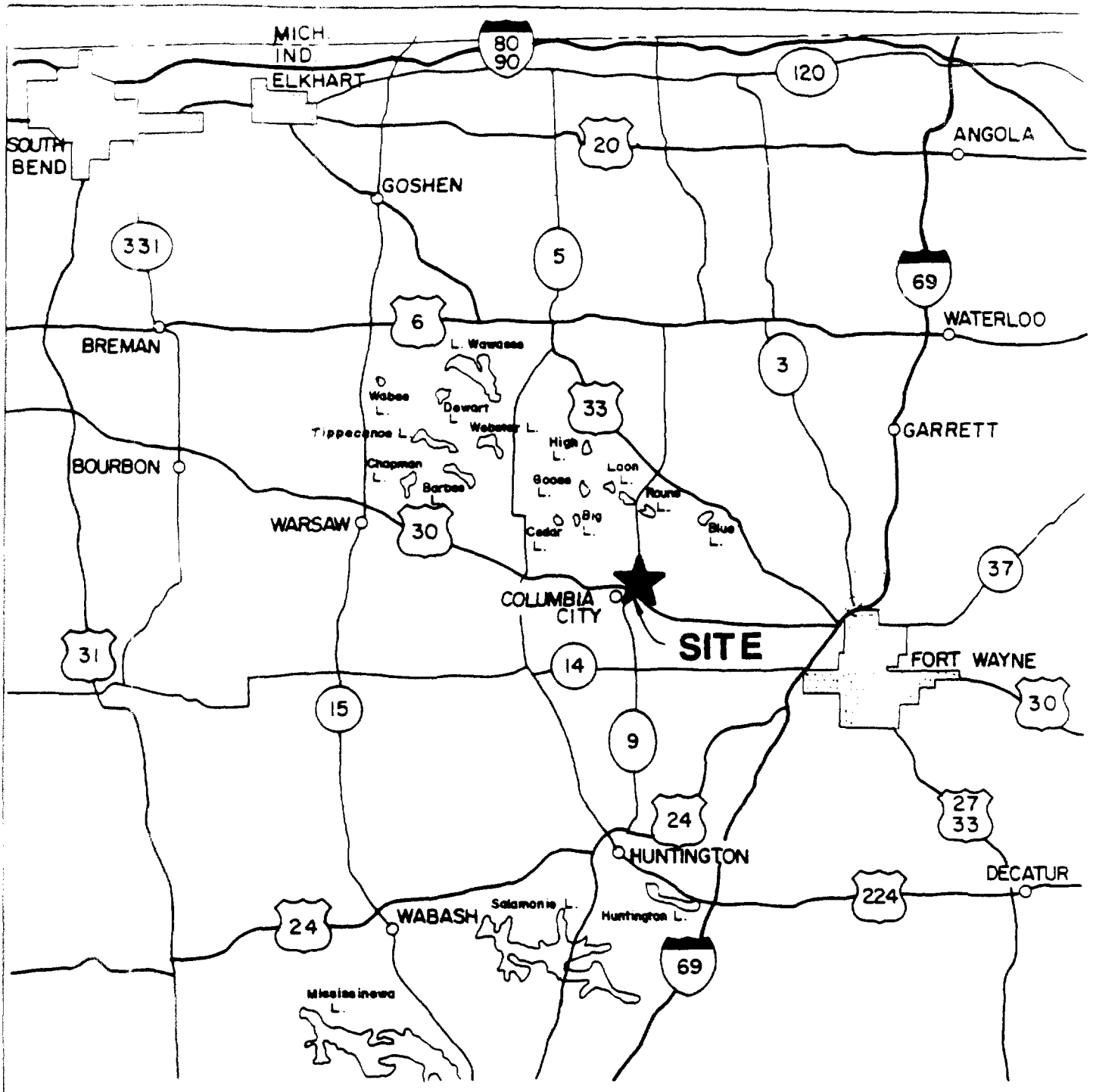
COLUMBIA CITY,
INDIANA

1) Five Year Review Report, Wayne Waste Oil Site, June 1999.

2) RD/RA Consent Decree, Wayne Waste Oil Site, July 1992

3) Record Of Decision, Wayne Waste Oil Site, March 1990.

4) Wayne Waste Oil Site file, and operation & maintenance documents.



FIGURE

WRR SITE LOCATION MAP

WAYNE RECLAMATION

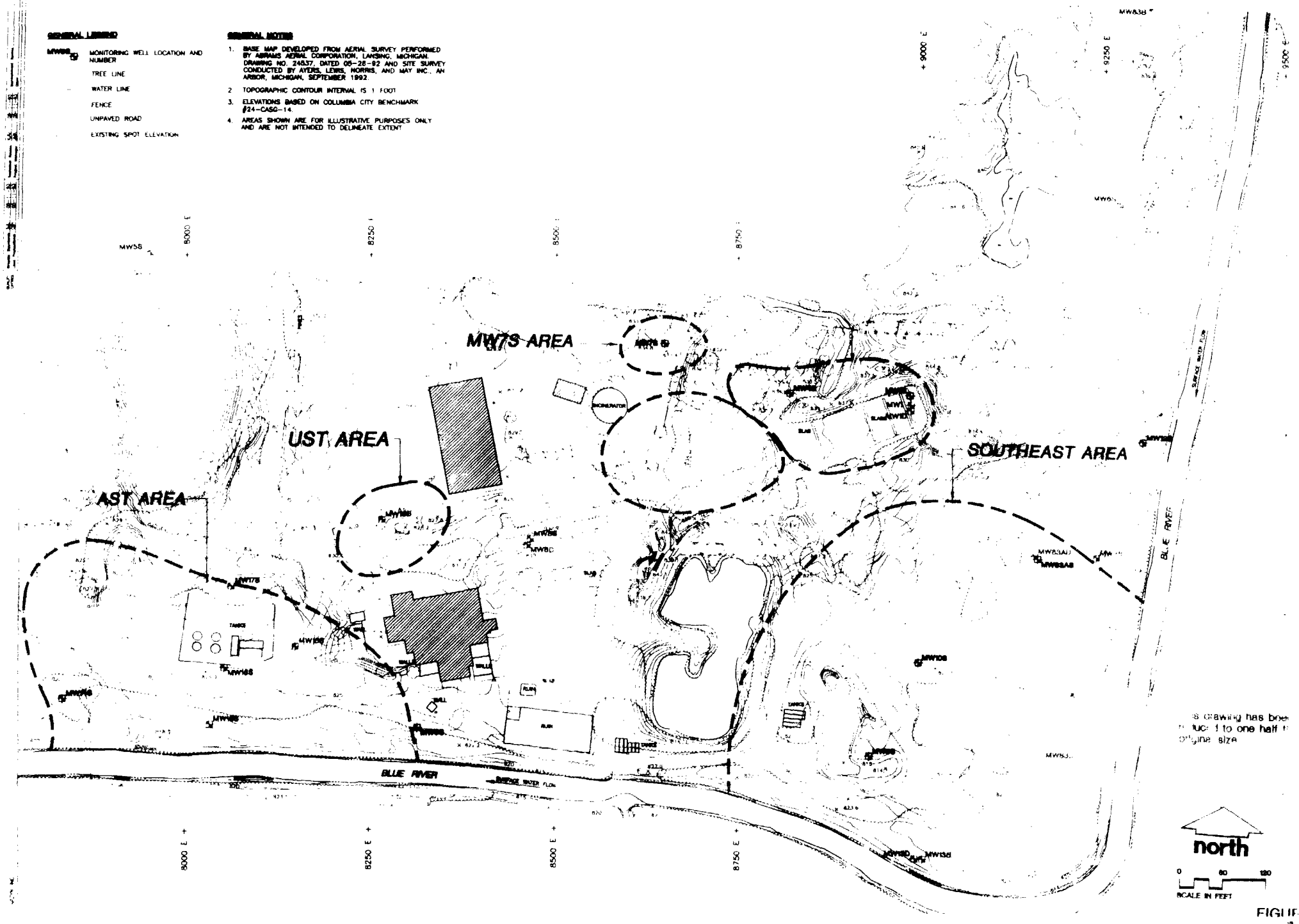

GENERAL LEGEND
MW8S MONITORING WELL LOCATION AND NUMBER
TREE LINE
WATER LINE
FENCE
UNPAVED ROAD
EXISTING SPOT ELEVATION
GENERAL NOTES
1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24837, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYERS, LEWIS, NORRIS, AND MAY INC., AN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASC-14.
4. AREAS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT INTENDED TO DELINEATE EXTENT
MW7S AREA
UST AREA
AST AREA
SOUTHEAST AREA
BLUE RIVER
BLUE RIVER
8000 E
8250 E
8500 E
8750 E
9000 E
9250 E
north
0
60
120
SCALE IN FEET

FIGURE 2